

Claims

I claim:

1. A circuit board comprising:
 - a first conductive area on a first side of said board;
 - a second conductive area on a second side of said board;
 - said board comprising a plurality of holes, said holes with a first end on said first side of said board and a second end on said second side of said board; and
 - a conductive material substantially filling said plurality of said holes and capable of forming an electrical connection between said first conductive area and said second conductive area.
2. The circuit board as in claim 1, wherein a diameter of said holes is approximately equal to a thickness of said board.
3. The circuit board as in claim 1, wherein said conductive material is applied to said board in a liquid form.
4. The circuit board as in claim 1, wherein said plurality of holes are formed in said board before said first conductive area is applied to said board.
5. The circuit board as in claim 1, comprising a non-conductive material applied to holes.
6. The circuit board as in claim 1, wherein said first conductive area is a conductive line.
7. The circuit board as in claim 1, wherein said board is comprised of a flexible non-conductive substrate.
8. The circuit board as in claim 7, wherein said substrate is a porous material.
9. The circuit board as in claim 1, wherein said first conductive area and said second conductive area overlap.
10. The circuit board as in claim 1, wherein said conductive material includes an adhesive capable of holding a portion of said first conductive area onto said first side of said board.

11. The circuit board as in claim 1, wherein said material is filled into said holes by painting said material onto said second side of said board.
12. The circuit board as in claim 1, wherein the number of holes filled with said material and capable of establishing an electrical connection between said first conductive area and said second conductive area is at least two.
13. The circuit board as in claim 1, wherein the total electrical current passing through the conductive material substantially filling said plurality of said holes is above a threshold current.
14. The circuit board as in claim 1, wherein said holes are less than 2 millimeters in diameter.
15. A switch comprising:
 - a board, said board comprising:
 - a plurality of holes said holes with a first end on said first side of said board and a second end on said second side of said board; and
 - a conductive area on a first side a said board;
 - a conductive material substantially filling at least one hole of said plurality of holes and capable of forming an electrical connection between said first conductive area and a conductive element applied to said material on said second side of said board.
16. The switch as in claim 15, wherein a diameter of said holes is approximately equal to a thickness of said circuit board.
17. The switch as in claim 14, wherein said circuit board is comprised of a flexible non-conductive substrate.
18. The switch as in claim 15, wherein said conductive element may be pressed into contact with said conductive material and released from said contact with said conductive material.
19. A method comprising forcing a conductive liquid into a plurality of holes in a non-conductive substrate, said liquid to form an electric connection between a first conductive area on a first side of said substrate and a second conductive area on a second side of said substrate.

20. The method as in claim 19, wherein said liquid is to solidify in said holes when dry.
21. The method as in claim 19, wherein said forcing comprises painting said liquid onto said substrate.
22. The method as in claim 19, comprising painting said liquid onto said first side of said nonconductive substrate and onto a second side of said non-conductive substrate.
23. The method as in claim 19, comprising simultaneously painting said liquid onto said first side of said non-conductive substrate and onto second side of said non-conductive substrate.
24. The method as in claim 19, wherein said forcing is by capillary force.
25. The method as in claim 19, comprising anchoring a portion of said first conductive area on a first side of said substrate with said conducting liquid.
26. The method as in claim 19, wherein said forcing comprises applying a force on such liquid from said first side of said substrate.
27. The method as in claim 19, wherein said forcing is by silk screen painting.